

XI. *On the Genus Imma*, Walk. (= Tortricomorpha, Feld.)  
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THE interesting genus, which is the subject of the present paper, has been the object of so much misapprehension and redescription, that it seemed worth while to clear up the generic synonymy, give a classified list of the described species, and describe the additional material which I possess, so as to bring the whole up to date. This I have done to the best of my knowledge, but authors have found the species so puzzling, and have referred them to such unexpected quarters, that I can hardly hope not to have overlooked some. I should be glad to be informed of any omitted. The authorities of the British Museum have also submitted to me their unworked material, containing many interesting forms.

The true location of the genus is unquestionably amongst the *Plutellidæ*. There is a group of this family in which the cilia of the hind-wings are commonly (though not invariably) relatively shorter in proportion to the breadth of the hind-wings than in any other *Tineina*, and the antennæ are also short; and it is to this group that *Imma* belongs. The group is more especially characteristic of the Indo-Malayan region, but *Brachodes* (*Atychia*) and *Simacthis* are familiar European exponents. Recent writers have usually admitted the genus to belong to the *Tineina*, but have referred it to the *Gelechiadæ* or *Xyloryctidæ*, from both of which it is immediately separated by the posterior tibiæ being smooth above, whilst in those families they are clothed with long hairs; moreover, as explained below, the forms with veins 7 and 8 of the fore-wings separate are generically inseparable from those with 7 and 8 stalked, and the former would be wholly inadmissible into either of these families as now understood. Further the labial palpi are quite different from the slender acute sickle-shaped type which is characteristic of those families and

the *Ceophoridæ*. I am not acquainted with any larva of the genus, but have received the cocoon of *I. mackwoodii* from Ceylon, and it is surrounded by an open network, as in *Plutella* itself and some other genera of the family.

Together with *Imma* I have described two curious new genera, which, whilst possessing peculiar types of neuration, are more allied to *Imma* than to anything else known at present.

The mutual affinities of the individual species are extremely puzzling; when closely compared no two are alike in structure, and species which resemble one another in one apparently important structural point usually differ in several others, so that it is hard to know on which to rely. Hence I can only offer a tentative arrangement of the species, which may be modified by subsequent further knowledge.

#### IMMA, Walk.

<i>Imma</i> , Walk., xvi, 195 (1858)	. . .	type <i>rugosalis</i> .
<i>Pingrasa</i> , Walk., xvi, 226 (1858)	. . .	„ <i>accuralis</i> .
<i>Tortricomorpha</i> , Feld., Sitzb. Ak. Wien. 1861, 43 (1861)	. . .	„ <i>atrosignata</i> .
<i>Moca</i> , Walk., xxvii, 102 (1863)	. . .	„ <i>velutina</i> .
<i>Topaza</i> , Walk., xxix, 808 (1864)	. . .	„ <i>alienella</i> .
<i>Vinzela</i> , Walk., xxxiv, 1260 (1865)	. . .	„ <i>inaptalis</i> .
<i>Jobula</i> , Walk., xxxv, 1888 (1866)	. . .	„ <i>semilinea</i> .
<i>Methypsa</i> , Butl., Trans. Ent. Soc. Lond. 1875, 324 (1875)	. . .	„ <i>saturata</i> .
<i>Bursadella</i> , Snell., Mid. Sum. 83 (1880)	. . .	„ <i>dichroalis</i> .
<i>Thylacopleura</i> , Meyr., Trans. Ent. Soc. Lond. 1886, 284 (1886)	. . .	„ <i>autodoxa</i> .
<i>Davendra</i> , Moore, Lep. Ceyl. iii, 520 (1886)	. . .	„ <i>mackwoodi</i> .
<i>Callartona</i> , Hamps., Moths Ind. i, 233 (1892)	. . .	„ <i>purpurascens</i> .
<i>Scaptelylix</i> , Hamps., Trans. Ent. Soc. Lond. 1895, 283, (1895)	. . .	„ <i>dichroalis</i> .
<i>Hyperperissa</i> , Wals., Swinh., Cat. ii, 546 (1900)	. . .	„ <i>aurantiaca</i> .
<i>Pseudotortricæ</i> , Turn., Trans. Roy. Soc. S. Austr. 1900, 16 (1900)	. . .	„ <i>acosma</i> .

Head with loosely appressed hairs, sometimes brushed upwards between antennæ or erect on crown in ♂; ocelli small or absent; tongue developed. Antennæ  $\frac{1}{2}$ – $\frac{3}{8}$ , in ♂ moderately ciliated, seldom fasciculate-ciliated or bipectinated, basal joint thickened or tufted with scales, sometimes very elongate in ♂. Labial palpi moderately long, curved, ascending, basal joint sometimes elongate, second joint

thickened with dense scales, in ♂ often laterally excurved, sometimes long-haired above, terminal joint seldom more than half second, pointed or obtuse, in ♂ sometimes shorter or minute or aborted. Maxillary palpi obsolete. Thorax in ♂ sometimes with lateral hairpencils from beneath fore-wings. Abdomen in ♂ sometimes with lateral tufts or hairpencils. Middle and posterior tibiae with appressed scales above, sometimes in ♂ with dense brushes of hairs beneath. Fore-wings elongate, more or less dilated; 1*b* furcate, 2 from near angle, 7 and 8 separate or stalked, 7 to termen, 8 usually to termen, sometimes to apex or costa, rarely absent (coincident with 7), 9-11 tolerably equidistant, no secondary cell. Hind-wings 1-1 $\frac{1}{2}$ , trapezoidal-ovate, cilia  $\frac{1}{2}$ - $\frac{3}{4}$ ; 2-5 remote and tolerably parallel, 6 and 7 stalked or seldom 6 absent (coincident), 8 connected with cell in middle; in ♂ sometimes with subdorsal groove or prominent tornal lobe.

Notwithstanding the variability of accessory characters, the constant structure of the palpi and neuration is so marked and distinct that no genus is easier of recognition. The nearest allied genera (apart from *Palamernis*, described hereafter) are *Simaethis* on the one hand, and *Phycodes* and *Brachodes* (*Atychia*) on the other. In distribution *Imma* is essentially tropical, probably Indo-Malayan in origin, since the large majority of species are natives of that region, but with indigenous representatives in Africa, Australia, and Central America.

In classing together as congeneric those forms which have veins 7 and 8 of the fore-wings separate, and those which have them stalked, I have relied upon the analogy of other genera of the *Plutellidæ*; in many of the principal genera of this family (*Glyphipteryx*, *Hilarographa*, *Prays*, *Argyresthia*, *Pyrozela*, *Mieza*, *Lactura*, etc.) these veins are found both separate and stalked, whilst the species show no other important structural or superficial distinction; the maintenance of pairs of allied genera in all these cases would in my opinion be artificial and unscientific. I should lay it down as a principle that in the *Plutellidæ* the stalking or separation of these particular veins is insufficient for the discrimination of genera unless supported by other characters. It is interesting to compare this state of things in the more primitive *Plutellidæ* with that found in the more specialized families of *Gelechiadæ* and *Ecophoridæ*, where these two veins are invariably stalked or coincident, without exception.

1. *I. autodora*, Meyr.

*Thylacopleura autodora*, Meyr., Trans. Ent. Soc. Lond.  
1886, 285.

Fiji.

2. *I. rugosalis*, Walk.

*Imma rugosalis*, Walk., xvi, 195.

♂. Abdomen with long lateral hairpencils from base (apparently). Tibiae with dense brushes of rough scales beneath. Fore-wings elongate-triangular, termen oblique, prominent above middle; 7 and 8 stalked, 8 to termen; fuscous, with darker discal dot at  $\frac{2}{3}$ . Hind-wings darker fuscous.

CEYLON. The above notes were made from the type, which is the only specimen I know of; the form of fore-wings is peculiar, quite different from any other species.

3. *I. accuralis*, Walk.

*Pingrasa accuralis*, Walk., xvi, 227.

♀. 20 mm. Head, thorax and abdomen light ochreous-fuscous, abdomen beneath and face ochreous-whitish. Palpi ochreous-whitish, fuscous-tinged, terminal joint short, light fuscous. Fore-wings elongate, posteriorly dilated, costa slightly arched, apex rounded, termen rounded, hardly oblique; 7 and 8 stalked, 8 to termen; ochreous-fuscous; a suffused darker discal dot or mark at  $\frac{2}{3}$ ; a small ochreous-whitish oblique costal mark before apex; a dark fuscous terminal line; cilia fuscous. Hind-wings dark fuscous, lighter towards base; cilia fuscous.

CEYLON. It is possible that this may be the other sex of *rugosalis*, but the differences are considerable. Walker's type, described as a male, is really a female, and I possess another specimen; his "perforations" are simply pin-holes.

4. *I. atrosignata*, Feld.

*Tortricomorpha atrosignata*, Feld., Sitzb. Ak. Wien. 1861,  
43, Reis. Nov. pl. cviii, 3.

AMBOINA. I have not seen this species.

5. *I. myliias*, n. sp.

♂ ♀. 20–22 mm. Head and thorax light greyish-ochreous or pale whitish-fuscous, patagia sometimes finely edged with yellowish. Palpi whitish-yellowish, second joint externally light grey except towards base, terminal joint short, grey. Antennæ fuscous, beneath pale ochreous. Abdomen light fuscous, beneath whitish. Posterior tibiae in ♂ beneath with broad brush of long whitish hairs. Fore-wings elongate, posteriorly dilated, costa gently arched, somewhat bent beyond middle, apex obtuse, termen slightly rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; light fuscous with a faint purplish tinge, densely strewn with pale ochreous-yellowish hair-scales; obscure ochreous-yellowish short oblique streaks from costa at middle and  $\frac{3}{4}$ , first seldom continued as a faint zig-zag line to  $\frac{3}{4}$  of dorsum; a round dark fuscous discal dot at  $\frac{5}{8}$ , above which is sometimes a second indistinct dot, and a line of dark scales edging costal streak; a fine ochreous-yellowish line round apex and termen, edged on apex and upper part of termen by a fine blackish marginal line, and on lower part of termen by dark fuscous dots; cilia light fuscous, extreme tips whitish. Hind-wings fuscous, becoming dark fuscous posteriorly; cilia fuscous-whitish, with fuscous basal line.

CEYLON (Puttalam, Haputala, Peradeniya, Matale); seven specimens (*Pole, Green*).

6. *I. cladophragma*, n. sp.

♀. 19–20 mm. Head and thorax ochreous-yellow, thorax with two oblique fuscous bars approximated posteriorly. Palpi whitish-yellowish, terminal joint short. Antennæ whitish-ochreous. Abdomen grey, beneath whitish. Fore-wings elongate, posteriorly dilated, costa gently arched, somewhat bent beyond middle, apex rounded-obtuse, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; deep ochreous-yellow; longitudinal suffused fuscous streaks above and below middle from near base to near middle; a narrow slightly curved fuscous fascia, anteriorly edged with dark leaden-metallic, from beyond middle of costa to  $\frac{3}{4}$  of dorsum, posteriorly with median and supratornal projecting branches not reaching termen; a waved fuscous terminal line, somewhat dilated towards apex (cilia imperfect). Hind-wings rather dark grey; cilia grey.

SINGAPORE; two specimens in British Museum (*Ridley*).

7. *I. transversella*, Snell.

*Cryptophasa transversella*, Snell., Tijd. v. Ent., xxii, 136, pl. vii, 12-16; *Tortricomorpha obliquifasciata*, Wals., Swinh. Cat. Het. ii, 547.

NEW GUINEA, CELEBES, JAVA, SINGAPORE; and I have a specimen reputed to be African, but perhaps by error.

8. *I. albifasciella*, Pag.

*Tortricomorpha albifasciella*, Pag., Zoologica, xxix, 234; *T. monodesma*, Low., Trans. Roy. Soc. S. Austr. 1903, 70.

BISMARCK IS., QUEENSLAND. Lower's description is incomplete, but I possess specimens from his locality which agree fully with Pagenstecher's description. The middle and posterior tibiæ of ♂ have very large brushes of hairs beneath, as in the preceding species.

9. *I. triardis*, n. sp.

♂. 24 mm. Head fuscous, face ochreous-white, hairs brushed upwards between antennæ. Palpi fuscous, second joint whitish internally and on a lateral streak, terminal joint short, acute. Antennæ fuscous. Thorax rather dark fuscous, posterior extremity whitish. Abdomen dark grey, beneath ochreous-white. Fore-wings elongate, posteriorly dilated, costa gently arched, apex very flatly rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; rather dark fuscous, faintly purplish-tinged, costa somewhat darker; three short slender oblique wedge-shaped ochreous-whitish marks on costa before middle, before  $\frac{2}{3}$ , and before apex; cilia fuscous. Hind-wings dark grey; cilia grey.

S. INDIA (Wainad). One specimen in British Museum.

10. *I. niveiciliella*, Snell.

*Tortricomorpha niveiciliella*, Snell., Tijd. v. Ent. xxviii, 28, pl. II, 18.

CELEBES. Not known to me.

11. *I. acosma*, Turn.

*Pseudotortrix acosma*, Turn., Trans. Roy. Soc. S. Austr. 1900, 16.

## SOUTH-EAST AUSTRALIA.

12. *I. congrualis*, Wals., Swinh. Cat. Het. ii, 546.

♂ ♀. 25-28 mm. Head and thorax fuscous, face whitish-ochreous. Palpi fuscous, second joint whitish-ochreous above and internally, terminal joint short. Antennæ dark fuscous, basal joint with tuft of scales anteriorly. Abdomen fuscous, in ♂ ochreous-whitish on two apical segments and beneath, in ♀ whitish-ochreous beneath, in ♂ with very large exertible whitish genital tuft, grey on basal half. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; fuscous, faintly purplish-tinged; an indistinct dark fuscous discal dot at  $\frac{2}{3}$ ; in ♀ a narrow terminal fascia of dark fuscous suffusion, in ♂ linear and nearly obsolete; cilia fuscous. Hind-wings in ♂ with shallow submedian groove, furnished with some long hairs; rather dark fuscous, in ♀ becoming more blackish-fuscous posteriorly; cilia fuscous.

NEW GUINEA, HALMAHERA; nine specimens, and nine others in British Museum.

13. *I. marileutis*, n. sp.

♂ ♀. 24-25 mm. Head, palpi, antennæ, thorax, and abdomen fuscous, abdomen beneath whitish-ochreous, in ♂ rough-haired above on basal half; terminal joint of palpi very short; basal joint of antennæ tufted. Fore-wings elongate, dilated, costa gently arched, apex rounded-obtuse, termen slightly rounded, little oblique; 7 and 8 stalked, 8 to termen; rather dark fuscous, slightly purplish-tinged; a small cloudy dark fuscous discal spot at  $\frac{2}{3}$ ; cilia fuscous. Hind-wings dark fuscous; cilia fuscous.

QUEENSLAND (Duaringa); two specimens (*Swinhoe*). Also two specimens in British Museum, said to be from South Australia.

14. *I. leiochroa*, Low.

*Tortricomorpha leiochroa*, Low., Trans. Roy. Soc. S. Austr. 1903, 69.

QUEENSLAND. Not known to me.

15. *I. psithyristsis*, n. sp.

♀. 23-24 mm. Head, antennæ, and thorax ochreous-fuscous basal joint of antennæ tufted anteriorly. Palpi greyish-ochreous, second joint much expanded with scales, terminal joint very short. Abdomen fuscous. Fore-wings elongate, rather broad, posteriorly dilated, costa gently arched, apex rounded, termen slightly rounded, little oblique; 7 and 8 stalked, 8 to apex; rather dark purplish-fuscous, strewn throughout with fine pale ochreous-fuscous strigule; a dark fuscous discal dot at  $\frac{2}{3}$ ; cilia fuscous. Hind-wings rather dark fuscous; cilia fuscous.

SOLOMON ISLANDS (Choiseul); two specimens (*Meek*).

16. *I. psoricopa*, n. sp.

♂. 17-20 mm. Head, palpi, antennæ, thorax, and abdomen rather dark fuscous; palpi with second joint long, excurved, ochreous-whitish internally, terminal joint aborted or concealed. Fore-wings elongate, posteriorly dilated, costa posteriorly slightly arched, apex rounded, termen rounded, slightly oblique; 7 and 8 stalked, 8 to termen; light ochreous-fuscous, suffusedly strigulated throughout with dark fuscous; small obscure whitish-ochreous spots on costa beyond middle and before apex; an ochreous-whitish discal dot at  $\frac{2}{3}$ , followed by a dark fuscous dot; cilia fuscous, with dark subbasal shade, and basal series of minute ochreous-whitish dots. Hind-wings rather dark grey; cilia grey, with darker subbasal shade and fine pale basal line.

CEYLON (Peradeniya, Madulsima); two specimens (*Green, Vaughan*).

17. *I. cyclostoma*, n. sp.

♂ ♀. 21-22 mm. Head pale fuscous, face in ♂ whitish-ochreous, with a circular central space surrounded by a shining pale grey ring. Palpi pale ochreous-yellowish, anteriorly fuscous externally, and in ♂ fringed with somewhat rough scales internally, terminal joint in ♂ imperceptible, in ♀ very short. Antennæ dark fuscous, yellowish beneath. Thorax fuscous, with a few yellowish scales. Abdomen fuscous, in ♂ with rough lateral hairs brushed upwards to dorsum, beneath ochreous-whitish. Fore-wings elongate, posteriorly dilated, costa slightly arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; rather dark fuscous, more or less sprinkled finely with pale ochreous, which sometimes forms a broad



posterior discal suffusion; a line of pale ochreous scales along submedian fold towards base; a faintly indicated irregular line of similar scales from middle of costa to  $\frac{2}{3}$  of dorsum; an obscure dark fuscous discal dot at  $\frac{2}{3}$ ; a more or less defined pale whitish-ochreous apical mark, and terminal row of minute sometimes connected crescentic dots; cilia fuscous, with dark fuscous basal line. Hind-wings dark fuscous, somewhat lighter towards base; cilia whitish-fuscous, with dark fuscous basal line.

ASSAM (Khasi Hills), TENASSERIM (Tandong); four specimens.

18. *I. metriodoxa*, n. sp.

♀. 22 mm. Head fuscous mixed with whitish-ochreous, lower part of face whitish-ochreous. Palpi fuscous, second joint above and internally whitish-ochreous, terminal joint short. Antennæ fuscous. Thorax fuscous sprinkled with whitish-ochreous. Abdomen light fuscous, beneath whitish-ochreous. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; fuscous, finely sprinkled with ochreous-whitish; a small indistinct ochreous-whitish spot on costa before middle; a moderate dark fuscous discal dot at  $\frac{2}{3}$ ; a slender ochreous-whitish oblique streak from costa at  $\frac{2}{3}$ , angulated above middle and thence proceeding as a faint sinuate line to tornus; an ochreous-whitish almost apical dot; an irregular terminal line of dark fuscous suffusion; cilia fuscous, extreme base ochreous-whitish. Hind-wings fuscous; a suffused submedian streak paler and ochreous-tinged; cilia fuscous, toward tornus with tips whitish.

SUMBAWA: one specimen.

19. *I. grammarcha*, Meyr.

*Tortricomorpha grammarcha*, Meyr., Journ. Bomb. Nat. Hist. Soc. 1905, 611.

CEYLON. Also in British Museum, from Borneo.

20. *I. lysidesma*, n. sp.

♂ ♀. 25-28 mm. Head pale ochreous, hairs in ♂ brushed upwards between antennæ. Palpi whitish-ochreous, in ♂ externally brownish-tinged, terminal joint short. Antennæ fuscous, in ♂ bidentate with acute triangular processes. Thorax fuscous, posterior extremity ochreous-whitish. Abdomen dark fuscous, beneath

whitish-ochreous. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; in ♂ dark fuscous, in ♀ somewhat lighter ochreous-fuscous; a slender irregular whitish-ochreous line running from a narrow spot on middle of costa to near dorsum at  $\frac{2}{3}$ , interrupted above middle, variable in development and sometimes nearly altogether obsolete; cilia fuscous, darker towards base, tips in ♀ whitish. Hind-wings dark fuscous; cilia as in fore-wings.

ASSAM (Khasi Hills); five specimens. Also one from Perak in British Museum.

### 21. *I. costipuncta*, Feld.

*Tortricomorpha costipuncta*, Feld. Reis. Nov. pl. cviii, 1, 5.

♂ ♀. 20-21 mm. Head pale ochreous, tinged with fuscous on crown. Palpi pale yellow-ochreous, anteriorly infuscated, terminal joint short. Antennæ, thorax, and abdomen fuscous; thorax in ♂ with very long whitish-ochreous lateral hairpencil beneath wings. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded-obtuse, termen somewhat rounded, hardly oblique; 7 and 8 stalked, 8 to termen; rather dark fuscous, slightly purplish-tinged; a hardly darker cloudy discal dot at  $\frac{2}{3}$ ; a whitish-ochreous triangular dot on costa beyond middle; a whitish-ochreous streak from costa before apex to termen above tornus, triangularly dilated towards costa, confluent at extremities with a toothed whitish-ochreous line along termen; cilia fuscous. Hind-wings and cilia fuscous.

AMBOINA; two specimens. I describe this species, as no description has ever been published.

### 22. *I. priozona*, n. sp.

♂. 19 mm. Head whitish-ochreous, crown and a frontal tuft of scales mixed with fuscous. Palpi whitish-ochreous, second joint anteriorly fuscous-tinged and with a dark fuscous streak above externally, terminal joint short, fuscous. Antennæ dark fuscous, basal joint somewhat tufted anteriorly. Thorax fuscous, with ochreous-whitish posterior spot. Abdomen rather dark fuscous, beneath whitish-ochreous. Fore-wings elongate, posteriorly dilated, costa slightly arched, bent about  $\frac{2}{3}$ , apex rounded-obtuse, termen nearly straight, little oblique; 7 and 8 stalked, 8 to termen; rather dark fuscous, faintly purplish-tinged; a whitish-ochreous basal dot; a slender irregular whitish-ochreous fascia from before middle of costa

to  $\frac{2}{3}$  of dorsum, with sharp posterior projection in middle and obtuse one on submedian fold; a small triangular whitish-ochreous spot on costa before apex; cilia fuscous. Hind-wings with slight subdorsal groove; rather dark fuscous, somewhat lighter towards base; cilia fuscous, tips obscurely whitish.

BORNEO; one specimen.

23. *I. aulonias*, n. sp.

♀. 18 mm. Head pale fuscous. Palpi fuscous-whitish, second joint short, much expanded with scales, fuscous anteriorly towards apex, terminal joint very short, anteriorly fuscous. Antennæ fuscous. Thorax and abdomen fuscous, beneath whitish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen somewhat rounded, little oblique; 7 and 8 stalked, 8 to apex; ochreous-fuscous, finely sprinkled with dark fuscous; basal third of dorsum suffused with dark fuscous; a straight slender irregular-edged whitish streak from middle of costa to  $\frac{2}{3}$  of dorsum; a dark fuscous dot in disc at  $\frac{3}{8}$ ; an ochreous whitish dot on costa at  $\frac{3}{4}$ ; a slender twice sinuate ochreous whitish line from costa near apex to tornus; cilia pale whitish-ochreous with two fuscous shades. Hind-wings dark fuscous, somewhat lighter towards base; cilia fuscous, with darker basal line.

SOLOMON ISLANDS (Rendova); one specimen (*Meek*).

24. *I. inaptalis*, Walk.

*Vinzela inaptalis*, Walk., xxxiv, 1261.

BORNEO, PERAK.

25. *I. bilinecella*, Snell.

*Tortricomorpha bilinecella*, Snell, Tijds. v. Ent. xxviii, 27, pl. ii, 16, 17.

CELEBES, SANGIR, BURU, BISMARCK ISLANDS.

26. *I. dipselia*, n. sp.

♂. 26 mm. Head and thorax light fuscous, face whitish-ochreous, thorax with lateral pencil of long ochreous-whitish hairs from beneath fore-wings. Palpi yellow-ochreous, second joint anteriorly fuscous, terminal joint short, pale fuscous. Antennæ fuscous. Abdomen fuscous, beneath whitish-ochreous, beyond middle with two

tufts of hairs on each side brushed upwards to dorsum. Fore-wings elongate, posteriorly dilated, costa hardly arched, sinuate before middle, apex rounded-obtuse, termen somewhat rounded, little oblique; 7 and 8 stalked, 8 to termen; fuscous, slightly ochreous-tinged; a whitish-ochreous somewhat irregular line from middle of costa to  $\frac{2}{3}$  of dorsum, faintly bent in disc; a whitish-ochreous waved line from costa before apex to termen above tornus, dilated on costa; cilia fuscous. Hind-wings with median and submedian grooves; dark fuscous, lighter towards base; cilia fuscous.

SULU: one specimen in British Museum. This species is closely allied and very similar to *bilineella*, but structurally distinct by the possession of the lateral tufts of abdomen, and differs slightly in other details.

27. *I. porpanthes*, n. sp.

♂. 24 mm. Head whitish-ochreous, crown suffused with dark fuscous. Palpi ochreous-yellowish, second joint externally with a fuscous streak on upper half, terminal joint half second, dark fuscous. Antennæ dark fuscous, basal joint long, thickened with scales anteriorly. Thorax and abdomen dark fuscous, beneath ochreous-whitish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded-obtuse, termen somewhat rounded, slightly oblique; 7 and 8 stalked, 8 to termen; rather dark fuscous, tinged anteriorly with purplish, posteriorly with ochreous; markings pale ochreous-yellowish; a small irregular basal spot, and three others in a subbasal transverse series; a narrow irregular fascia from  $\frac{2}{3}$  of costa to near dorsum beyond middle, interrupted in middle; a triangular spot on costa at  $\frac{1}{2}$ ; a small round spot near termen beneath apex, and a transverse spot near termen below middle; cilia fuscous. Hind-wings and cilia dark fuscous.

PERAK: one specimen in British Museum (*Doherty*).

28. *I. thyriditis*, n. sp.

♂ ♀. 20-24 mm. Head in ♂ ochreous-yellowish, in ♀ whitish-ochreous. Palpi yellow-whitish, basal joint in ♂ rather long, second joint in ♂ externally yellowish with a fuscous streak except towards base, terminal joint  $\frac{2}{3}$  of second, in ♂ thickened with rough scales anteriorly, obtuse, externally fuscous, in ♀ acute. Antennæ grey, in ♂ pale yellowish above towards base. Thorax in ♂ ochreous-yellowish, shoulders fuscous, in ♀ fuscous. Abdomen in ♂ elon-

gate, grey, whitish-yellowish on sides and beneath, in ♀ dark grey, ochreous-whitish beneath. Posterior tibiæ hairy beneath on basal half. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded-obtuse, termen slightly rounded, nearly vertical; 7 and 8 stalked, 8 to termen; in ♂ ochreous-fuscous, more or less wholly suffused with ochreous-yellow, especially on veins and in cell, in ♀ darker fuscous; a dark fuscous streak along basal fourth of dorsum; a slender irregular pale yellowish fascia from before middle of costa to  $\frac{2}{3}$  of dorsum, edged anteriorly with a few dark fuscous scales, in ♀ less marked and becoming obsolete towards dorsum; an indistinct darker discal dot at  $\frac{3}{4}$ ; a small pale yellowish spot on costa at  $\frac{3}{4}$ , whence proceeds an undefined pale line or series of marks to tornus, in ♀ nearly obsolete; costal edge in ♂ blackish between this spot and the next; a small pale yellow triangular spot on costa towards apex, whence proceeds a pale yellow submarginal line to termen above tornus, edged posteriorly with blackish-fuscous; cilia pale fuscous, beneath apex with a pale yellowish patch. Hind-wings in ♂ with slight submedian and subdorsal grooves; dark fuscous, basal  $\frac{2}{3}$  almost naked, transparent, with dark fuscous veins; cilia fuscous, towards base dark fuscous, tips whitish.

SOLOMON ISLANDS (Choiseul, Gizo, Rendova): six specimens (*Meek*).

29. *I. dioptrias*, n. sp.

♀. 18 mm. Head fuscous, sides of crown yellowish, face yellow-whitish. Palpi yellowish, second joint externally with a dark fuscous streak on upper half, terminal joint short, fuscous. Antennæ dark fuscous, basal joint with apical anterior scale-tooth. Thorax purplish-fuscous, with a few yellowish hairscales. Abdomen dark purplish-fuscous, beneath yellow-whitish. Fore-wings elongate, narrowed towards base, posteriorly dilated, costa posteriorly gently arched, apex rounded, termen somewhat rounded, little oblique; 7 and 8 stalked, 8 to apex; dark fuscous, basal  $\frac{2}{3}$  suffused with violet-blue; short yellowish subcostal and median streaks from base, connected at base, merged posteriorly in a broad transverse band of tawny-ochreous suffusion, limited by a narrow yellow fascia from before middle of costa to near middle of dorsum, not quite reaching it; a triangular pale yellow spot on costa just before apex, and a series of faint yellowish dots before termen; cilia fuscous. Hind-wings transparent, with dark fuscous veins; a broad costal and narrower irregular terminal band dark fuscous; cilia fuscous.

NEW GUINEA (Aroa River); one specimen (*Meek*).

30. *I. caelestis*, n. sp.

♂ ♀. 36–38 mm. Head orange, crown mixed with blackish. Palpi orange, second joint with a short black apical streak in front, terminal joint very short, black. Antennæ blackish. Thorax orange, with three broad undefined stripes of purple-blackish suffusion. Abdomen orange, with dorsal, lateral and sublateral series of purple-blackish spots. Fore-wings elongate, hardly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to costa; purple-blackish; costal edge ochreous-whitish except towards extremities; an irregular orange basal spot not reaching margins, connected by an irregular mark with dorsum near base; veins more or less marked by whitish-yellowish lines edged with a pale bluish tinge, not reaching margins, broadest on 1b and lower and posterior margins of cell, partially or quite obsolete on veins 2, 5, 6, and 9; a similar dorsal streak from  $\frac{1}{4}$  to beyond middle; cilia white, basal third blackish, apical third light grey. Hind-wings blackish-fuscous, lighter towards base; a pale orange median dash from base; an orange subdorsal streak, not quite reaching termen; cilia white, basal third dark fuscous.

W. CHINA (Kia-ting-fu); two specimens in British Museum, from Mr. Leech's collection.

31. *I. saturata*, Walk.

*Hypsa saturata*, Walk., pl. xxxi, 217.

JAVA. Not known to me, but I am indebted to Sir George Hampson for the following comparative notes, in relation to the preceding species, to which it is closely allied: "quite distinct from *caelestis*, larger, cilia of both wings black; hind-wings without the pale streaks, with a bluish-white discoidal striga and triangular spots in inter-spaces of terminal area."

32. *I. acroptila*, n. sp.

♂ ♀. 16–17 mm. Head whitish-ochreous, in ♂ on crown with very long erect spreading ochreous-whitish hairs mixed with fuscous. Palpi ochreous-yellowish, anteriorly fuscous, second joint in ♂ thickened, terminal joint in ♀ half second, in ♂ represented by a long curved expansible pencil of grey and yellowish hairs, concealing actual joint. Antennæ yellowish, basal joint elongate, in ♂ above

with apical scaletuft. Thorax dark fuscous, a dorsal line and posterior extremity orange. Abdomen dark fuscous, beneath ochreous-whitish. Fore-wings elongate, posteriorly dilated, costa moderately arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to costa; dark fuscous, mixed with glossy purplish-slaty on veins, in ♀ mixed with ochreous between veins; a short orange dash from base, and a slender streak beneath costa towards base; several small scattered orange spots and streaks in disc; in ♀ an obscure submarginal orange-ochreous line from  $\frac{3}{4}$  of costa to tornus (cilia imperfect). Hind-wings dark fuscous.

SIERRA LEONE (Mabang, Moyamba); two specimens in British Museum (*Dudgeon*). These are in poor condition, but the character of the ♂ palpi is very distinctive.

### 33. *I. radiata*, Wals.

*Jobula radiata*, Wals., Trans. Ent. Soc. Lond. 1897, 46, pl. iii, 16.

WEST AFRICA. Not known to me.

### 34. *I. hyphantis*, n. sp.

♀. 21 mm. Head, palpi, and antennæ light ochreous-yellowish, sides of crown pale whitish-fuscous; palpi anteriorly whitish-fuscous, terminal joint short. Thorax light fuscous, with dorsal, subdorsal and lateral yellow lines. Abdomen pale fuscous, beneath whitish-fuscous. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, hardly oblique; 7 and 8 stalked, 8 to termen; fuscous; fine ochreous-yellow lines beneath costa from base to near middle and on submedian fold from near base to beyond middle; a small ochreous-yellow spot in disc at  $\frac{1}{3}$ ; an irregular ill-defined ochreous-yellow line from a small spot on middle of costa to  $\frac{2}{3}$  of dorsum, obsolete interrupted above and below middle; between this and termen all veins marked with extremely fine pale yellowish lines, between which are some shorter pale ochreous-yellowish fine interneural streaks; an ochreous-yellow line round apex and termen, thickened round apex, edged by a dark fuscous marginal line; cilia whitish-ochreous, obscurely barred with fuscous (imperfect). Hind-wings dark fuscous, lighter towards base; cilia whitish, with fuscous basal line.

CEYLON (Matale); one specimen (*Pole*).

35. *I. semilinea*, Walk.

*Jobula semilinea*, Walk., xxxv, 1889.

SULU. Not known to me.

36. *I. procrossa*, n. sp.

♂. 24 mm. Head pale greyish-ochreous, sides of face yellowish. Palpi yellow-ochreous, internally fuscous-whitish, terminal joint short. Antennæ ochreous. Thorax fuscous (defaced). (Abdomen broken.) Fore-wings elongate-oblong, costa moderately arched, apex rounded, termen rounded, vertical; 7 and 8 stalked, 8 to apex; rather dark ochreous-fuscous, slightly purplish-tinged, streaked with ochreous between veins and in cell, and towards costa anteriorly with orange; all veins marked by fine ochreous lines, terminating in a submarginal yellow-ochreous streak from middle of costa to tornus, edged posteriorly with dark fuscous, and leaving a narrow fuscous border all round costa and termen; cilia light ochreous, basal third dark fuscous. Hind-wings dark grey, lighter towards base; cilia grey, with darker basal line.

BORNEO (Pulo Laut); one specimen in British Museum (*Doherty*).

37. *I. neurota*, n. sp.

♂ ♀. 16-20 mm. Head in ♂ whitish-ochreous, in ♀ fuscous, lower part of face whitish-ochreous. Palpi whitish-ochreous, second joint externally yellowish, in front fuscous, in ♂ somewhat excurved, terminal joint in ♂ minute, in ♀ very short. Antennæ dark fuscous, beneath pale ochreous, basal joint somewhat tufted anteriorly. Thorax and abdomen dark fuscous, beneath whitish-ochreous. Fore-wings elongate, posteriorly dilated, costa slightly arched, in ♂ straighter, apex rounded-obtuse, termen slightly rounded, little oblique; 7 and 8 stalked, 8 to apex; dark fuscous, markings ochreous-yellow; in ♂ a short streak beneath costa from base, in ♀ reduced to a basal dot; in ♀ a slender zigzag transverse streak from costa beyond middle, reaching  $\frac{3}{4}$  across wing, dilated on costa, in ♂ represented by a transverse series of three small spots or marks, costal somewhat triangular; a subdorsal dot beneath this; veins posteriorly marked with fine lines; a slender almost marginal streak round apex and termen to tornus, broadest at apex; cilia fuscous, darker in ♀. Hind-wings in ♂ with slight subdorsal



groove ; dark fuscous, lighter towards base, especially in ♂ ; in ♀ a fine pale yellowish almost marginal line round apex and upper half of termen ; cilia fuscous, tips whitish.

BORNEO ; two specimens. Also two in British Museum.

38. *I. alienella*, Walk.

*Topaza alienella*, Walk., xxix, 808.

BORNEO.

39. *I. xantharcha*, n. sp.

♀. 19 mm. Head ochreous-yellow, face paler, crown pale grey. (Palpi broken.) Antennæ yellowish, dark fuscous above, basal joint rather large, with scales angularly projecting anteriorly. Thorax dark purplish-fuscous, with two anterior and two posterior orange-yellow spots. Abdomen dark fuscous, beneath whitish-ochreous. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique ; 7 and 8 stalked ; 8 to apex ; dark purple-fuscous, irregularly strewn with yellow-ochreous scales between veins ; a short orange line beneath costa from base ; cilia ochreous-white, with dark fuscous basal line. Hind-wings fuscous, thinly scaled towards base, terminal third suffused with dark fuscous ; cilia as in fore-wings.

BORNEO (Pulo Laut) ; one specimen in British Museum (*Doherty*).

40. *I. trichinota*, n. sp.

♂ ♀. 17-18 mm. Head, thorax, and abdomen rather dark fuscous, sides of face whitish-ochreous. Palpi dark leaden-grey, second joint relatively short, yellowish above, terminal joint  $\frac{2}{3}$  of second. Antennæ dark fuscous, ochreous beneath. Fore-wings rather elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, little oblique ; 7 and 8 stalked ; 8 to costa ; dark purplish-fuscous ; in ♂ a longitudinal impression beneath costa from  $\frac{1}{2}$  to middle, containing a tuft of long ochreous-whitish scales from posterior extremity, covered by a flap of very long fuscous hairs from anterior extremity ; costal edge ochreous-white from before middle to  $\frac{3}{4}$  ; cilia ochreous-white, basal third blackish-fuscous. Hind-wings with 6 and 7 stalked in ♂, coincident in ♀ ; dark fuscous, towards base thinly scaled, with undefined semitransparent median and subdorsal streaks ; cilia as in fore-wings.

CELEBES ; two specimens. A female from Bali in British Museum, without palpi, appears otherwise quite identical. The terminal joint of palpi is not really longer than usual, but the unusual shortness of the second joint causes it to appear relatively longer. This and the two next species are nearly allied together, but structurally distinct.

41. *I. otoptera*, n. sp.

♂ ♀. 16-19 mm. Head and thorax fuscous, face whitish-ochreous. Palpi shining leaden-grey, second joint above with a subapical spot of yellowish suffusion, base light yellow, terminal joint half second. Antennæ dark fuscous, in ♂ ochreous beneath. Abdomen dark fuscous, beneath whitish. Fore-wings elongate, posteriorly dilated, somewhat broader in ♀, costa gently arched, apex rounded, termen rounded, little oblique ; in ♂ 7 and 8 stalked, in ♀ 8 absent (coincident), 8 when present to costa ; dark fuscous ; in ♂ a roundish impression beneath costa at  $\frac{2}{3}$ , containing a tuft of whitish-ochreous scales from upper margin, covered normally by a flap of long fuscous scales from anterior margin ; extreme costal edge ochreous-whitish on posterior  $\frac{2}{3}$  ; cilia ochreous-whitish, with dark fuscous basal line, towards tornus infuscated. Hind-wings with 7 absent (coincident with 6) ; dark fuscous, somewhat thinly scaled towards base, with indications of two or three semi-transparent streaks ; in ♂ a more distinct pale suffused streak from base through disc to beyond middle ; cilia as in fore-wings.

BORNEO ; five specimens. Also two in British Museum.

42. *I. chlorosphena*, n. sp.

♂ ♀. 15 mm. Head fuscous, face paler, sides ochreous-yellowish. Palpi ochreous-yellow, base whitish, second and terminal joints anteriorly dark leaden-grey from a submedian ring of second joint to apex, terminal joint half second. Antennæ dark fuscous. Thorax and abdomen rather dark fuscous, abdomen ochreous-whitish beneath except apical joint. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique ; 7 and 8 stalked, 8 to costa ; rather dark fuscous, slightly ochreous-tinged, darker posteriorly, costa and termen suffusedly blackish-fuscous ; in ♂ an oval impression beneath costa at  $\frac{2}{3}$ , containing a tuft of whitish-ochreous scales from upper margin, covered by a flap of long fuscous scales from anterior

margin; cilia ochreous-white, basal third blackish. Hind-wings with 6 and 7 stalked; blackish-fuscous; an elongate wedge-shaped ochreous-whitish spot in middle of disc; cilia as in fore-wings.

CEYLON (Maskeliya); three specimens (*Alston*).

43. *I. tesscraria*, n. sp.

♂. 23 mm. Head and thorax fuscous, face paler, sides yellowish. Palpi ochreous-yellow, anteriorly with a dark shining leaden-metallic streak on terminal joint and upper half of second, terminal joint half second. Antennæ ochreous, above with dark fuscous streak towards base. Abdomen dark fuscous with a few yellowish scales, beneath pale yellowish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; dark fuscous, with purplish and bronzy reflections, posteriorly with a few fine yellowish scales; a very indistinct spot of whitish-ochreous suffusion in disc at  $\frac{3}{5}$  (on under-surface represented by an oblique yellowish fascia not reaching margins); cilia ochreous-whitish, with blackish basal line, towards tornus fuscous-tinged. Hind-wings with submedian groove towards base; blackish-fuscous; a moderate elongate ochreous-yellow spot in middle of disc; cilia whitish, with dark fuscous basal line.

BORNEO; one specimen.

44. *I. diluticiliata*, Wals.

*Tortricomorpha diluticiliata*, Wals., Swin. Cat. Het. ii, 547.

ASSAM, SULU. Not known to me.

45. *I. viola*, Pag.

*Tortricomorpha viola*, Pag., J. B. Nass. Ver. xxxix, 182.

ARU. Not known to me.

46. *I. homalotis*, n. sp.

♂ ♀. 21-22 mm. Head fuscous, face ochreous-yellowish. Palpi in ♂ ochreous-yellowish, second joint much thickened with scales somewhat expanded towards apex above, terminal joint very short (in ♀ broken). Antennæ dark fuscous, basal joint in ♂ much thickened with scales projecting anteriorly towards apex. Thorax

ochreous-fuscous. Abdomen rather dark fuscous, beneath whitish-yellowish. Fore-wings elongate, posteriorly slightly dilated, costa gently arched, apex rounded, termen rounded, hardly oblique; 7 and 8 stalked, 8 to apex; rather dark ochreous-fuscous, anteriorly slightly purplish-tinged; cilia fuscous, tips paler. Hind-wings dark fuscous, somewhat lighter towards base; cilia as in fore-wings.

BORNEO (Pulo Laut); two specimens in British Museum (*Doherty*).

47. *I. auwobathra*, n. sp.

♂ ♀. 15-16 mm. Head in ♂ fuscous, collar and sides of face yellow-ochreous, in ♀ wholly yellow-ochreous. Palpi ochreous-yellow, second joint anteriorly in ♂ whitish-fuscous, in ♀ fuscous, terminal joint short. Antennæ ochreous-fuscous, above dark fuscous, basal joint in ♂ very long, in ♀ long, stalk in ♂ thickened with rough scales above towards base. Thorax dark fuscous, anteriorly with lateral and in ♀ also subdorsal streaks and posterior extremity orange. Abdomen dark fuscous, segmental margins in ♀ pale yellowish, beneath pale yellowish. Fore-wings elongate-triangular, costa gently arched, apex rounded, termen rather obliquely rounded; 8 absent (coincident with 7); in ♂ dark purplish-fuscous, in ♀ blackish; markings ochreous-orange; a subcostal streak from near base to  $\frac{1}{4}$ ; an oblique streak from beneath middle of this to  $\frac{1}{3}$  of dorsum; an oblique series of three small spots beyond these, middle one dash-like; a larger subtriangular spot on middle of costa; in ♀ a pear-shaped blotch extending almost from apex of this to near dorsum at  $\frac{3}{4}$ , bilobed beneath, in ♂ reduced to two dots representing extremities; in ♀ a moderate spot in disc beyond this, in ♂ dot-like; a curved series of about ten longitudinal marks from beneath costa at  $\frac{2}{3}$  to above tornus, in ♂ reduced and ill-defined (cilia imperfect). Hind-wings with 7 absent (coincident with 6); in ♀ blackish-fuscous, with a pale yellowish triangular spot in middle of disc, and a slender pale yellowish subdorsal streak not reaching base or tornus; in ♂ dark fuscous, lighter on discal and subdorsal streaks from base, tornus produced into a rounded prominence, above with a deep dorsal groove containing a pencil of long hairs.

BORNEO; two specimens.

48. *I. megalyntis*, n. sp.

♀. 19 mm. Head whitish-ochreous, crown mixed with blackish. (Palpi broken.) Antennæ whitish-ochreous, above dark fuscous. Thorax dark fuscous, with yellowish sublateral stripes and posterior

spot (partly defaced). Abdomen dark fuscous, somewhat sprinkled with yellowish, beneath pale yellowish. Fore-wings elongate-triangular, costa gently arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; blackish-fuscous, markings ochreous-yellow; a submedian streak from base to  $\frac{2}{3}$ , posteriorly dilated; a small oblique wedge-shaped spot on costa at  $\frac{1}{3}$ ; two large rounded-triangular spots on costa at  $\frac{1}{3}$  and  $\frac{2}{3}$ , and two larger spots in dorsal half of wing rather obliquely beyond these respectively; cilia whitish, with blackish basal line. Hind-wings blackish-fuscous, towards base more thinly scaled and with several slender semi-transparent streaks; a longitudinal ochreous-yellow spot in disc beneath middle; cilia as in fore-wings.

BORNEO; one specimen.

49. *I. hectæa*, n. sp.

♀. 17 mm. Head ochreous-yellowish, crown fuscous. Palpi pale ochreous-yellow, second joint anteriorly fuscous-tinged, terminal joint short, light fuscous. Antennæ dark fuscous. Thorax fuscous, with a whitish-ochreous posterior spot. Abdomen dark fuscous, somewhat mixed with pale yellowish, beneath pale yellowish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to costa; blackish; a moderate ochreous-yellow streak from base below middle of disc to  $\frac{2}{3}$ ; a slightly curved ochreous-yellow fascia from middle of costa, broadest on costa and at  $\frac{3}{4}$ , constricted above middle, not quite reaching dorsum at  $\frac{2}{3}$ ; cilia ochreous-white, base dark fuscous. Hind-wings dark fuscous, with thinly scaled lighter elongate patches along dorsum and in anterior portion of disc; cilia as in fore-wings.

BORNEO; one specimen.

50. *I. mesochorda*, n. sp.

♂. 15-16 mm. Head whitish-ochreous, crown infuscated. Palpi pale ochreous-yellowish, second joint fuscous externally on upper half, terminal joint short, fuscous. Antennæ dark fuscous, beneath pale yellowish, fasciculate-ciliated. Thorax and abdomen dark fuscous, beneath ochreous-whitish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to apex; dark fuscous; a slender rather irregular light ochreous-yellow slightly curved fascia from middle of costa to  $\frac{2}{3}$  of dorsum, but not quite reaching dorsal edge, constricted beneath costa; cilia dark fuscous, tips paler, round apex

ochreous-whitish except on basal third. Hind-wings dark fuscous, lighter towards base ; cilia fuscous, round apex whitish, basal third dark fuscous.

ASSAM (Khasi Hills) ; two specimens.

51. *I. albotaeniana*, Saub.

*Tortricomorpha albotaeniana*, Saub., Semp. Schmett. Phil. ii, 697.

PHILIPPINES, JAVA. Not known to me.

52. *I. aurantiaca*, Semp.

*Sidyra aurantiaca*, Semp., Schmett. Phil. ii, 501, pl. lix, 9.

PHILIPPINES. The antennæ of ♂ in this and the next species are bipectinated.

53. *I. basiflava*, Semp.

*Sidyra basiflava*, Semp., Schmett. Phil. ii, 500, pl. lix, 8.

PHILIPPINES. Not known to me, but it is very near the preceding species.

54. *I. panopta*, n. sp.

♂ ♀. 34-40 mm. Head dark fuscous, orbits ochreous-yellowish. Palpi ochreous-yellow, terminal joint very short. Antennæ, thorax and abdomen dark fuscous, abdomen ochreous-yellow beneath. Fore-wings rather broad, especially in ♀, costa rather strongly arched, apex obtuse, termen rounded, hardly oblique ; 7 and 8 stalked, 8 to termen ; blackish-fuscous, slightly purplish-tinged ; an orange median band, greatly dilated downwards, anterior edge running from  $\frac{1}{4}$  of costa to  $\frac{1}{4}$  of dorsum, straight, somewhat irregular, posterior edge running from before middle of costa to  $\frac{3}{4}$  of dorsum, twice curved outwards above and below middle ; cilia dark fuscous. Hind-wings blackish-fuscous ; a rather irregular orange blotch resting on median third of costa, narrowed downwards, reaching more than half across wing ; cilia dark fuscous.

FLORES ; three specimens (*Swinhoe*).

55. *I. grammatistis*, n. sp.

♂. 33 mm. Head ochreous-white, crown dark fuscous towards centre. Palpi ochreous-whitish, terminal joint nearly half second. Antennæ dark grey. Thorax ochreous-white, with dark fuscous sub-dorsal stripes. Abdomen grey, beneath ochreous-whitish. Fore-wings broad, costa rather strongly arched, apex rounded, termen rounded, vertical; 7 and 8 stalked, 8 to apex; dark fuscous; markings ochreous-white; a streak beneath costa from base to  $\frac{2}{3}$ ; a fine dorsal streak from near base to near tornus; all veins marked by strong streaks, not quite reaching margin, posteriorly terminating in a curved submarginal streak which is broadest opposite apex; a violet-metallic line along termen; cilia fuscous, becoming whitish towards tornus, basal half dark fuscous. Hind-wings dark fuscous, lighter towards base; a suffused whitish streak along upper half of termen; cilia ochreous-white, round tornus and dorsum fuscous.

NEW GUINEA (Kapaur); one specimen in British Museum (*Doherty*).

56. *I. minatrix*, n. sp.

♀. 33-36 mm. Head orange-yellow, crown with two blackish lines. Palpi ochreous-yellowish, terminal joint short, with a few blackish scales anteriorly. Antennæ blackish. Thorax orange-yellow, with four broad blackish stripes. Abdomen dark fuscous, beneath ochreous-yellowish. Fore-wings elongate, much dilated posteriorly, costa strongly arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to apex; yellow-orange, markings purple-blackish; a costal streak from base, terminating in a patch which occupies apical  $\frac{2}{3}$  of wing beyond a curved line from middle of costa to dorsum before tornus, except a curved anteapical fascia of ground colour from near costa at  $\frac{1}{4}$  to near termen above tornus; a subcostal streak from base, sometimes reaching posterior patch; median and submedian streaks from base to near middle, median basally confluent with subcostal; a dorsal streak from base to  $\frac{2}{3}$  attenuated at base; cilia blackish. Hind-wings blackish-fuscous, centre of disc purple-blackish; an anteapical yellow-orange fascia, attenuated downwards to termen below middle; cilia blackish-fuscous, on termen pale orange from  $\frac{1}{4}$  to  $\frac{3}{4}$ .

NEW GUINEA (Fergusson Island); two specimens in British Museum (*Meek*). There is also in British Museum an example from Kapaur, New Guinea, which has the

orange fascia of hind-wings anteriorly dilated so as to extend over centre of disc (thus destroying the central purple-black patch), and the cilia wholly blackish, not orange; without further material I am unable to determine whether this is a variety of *minatrix* or a closely allied species; and further it is conceivable that one or both forms may be the other sex of *grammatistis*, notwithstanding the extraordinary difference in appearance.

57. *I. dichroalis*, Snell.

*Bursadella dichroalis*, Snell., Mid Sum., 83; *Scaptesyliæ hemichryseis*, Hamps., Trans. Ent. Soc. Lond. 1895, 283.

BURMA, SUMATRA.

58. *I. epichlaena*, n. sp.

♀. 16 mm. Head, palpi, antennæ and thorax ochreous-yellow; palpi with a fuscous spot at apex of second joint externally, terminal joint short, fuscous except at base; basal joint of antennæ dark fuscous at apex, with scales projecting anteriorly. Abdomen dark grey, beneath ochreous-whitish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to apex; dark fuscous; basal  $\frac{2}{3}$  deep yellow, edge paler, irregular, followed by a thick line of leaden-metallic suffusion; small yellow spots on costa at  $\frac{1}{2}$  and  $\frac{3}{4}$ ; cilia ochreous-white, at tornus dark grey, basal third dark fuscous except on an apical patch. Hind-wings dark fuscous; cilia whitish, towards tornus greyish, basal third dark fuscous.

BORNEO (Pulo Laut); one specimen in British Museum (*Doherty*).

59. *I. flavibasa*, Moore.

*Davendra flavibasa*, Moore, Lep. Atk. 281.

EASTERN HIMALAYAS, ASSAM.

60. *I. hemixanthella*, Holl.

*Tortricomorpha hemixanthella*, Holl., Nov. Zool. vii, 590.

BURU. Not known to me.



61. *I. amphixantha*, n. sp.

♀. 20 mm. Head, antennæ, and thorax yellow. (Palpi broken.) Abdomen dark fuscous, beneath yellowish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded-obtuse, termen nearly straight, hardly oblique; 7 and 8 stalked, 8 to costa; ferruginous-brown; a deep yellow basal blotch occupying  $\frac{2}{3}$  of wing, outer edge straight, slightly irregular, followed by some dark purple-fuscous suffusion; within this blotch is an elongate fuscous spot on base of dorsum; a deep yellow streak running round apical fourth of costa and termen to near tornus, broadest at apex of wing, attenuated to extremities; cilia yellow, at tornus grey. Hind-wings dark fuscous, somewhat lighter towards base; cilia whitish-ochreous, with fuscous basal line.

BORNEO; one specimen.

62. *I. cymbalodes*, n. sp.

♀. 18-21 mm. Head and palpi light yellow-ochreous, palpi anteriorly infuscated, terminal joint half second. Antennæ fuscous, yellowish beneath. Thorax fuscous, edges of collar and patagia, and posterior extremity more or less yellowish. Abdomen fuscous mixed with green, sides posteriorly with fringe of hairs, beneath pale ochreous-yellowish. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen somewhat rounded, little oblique; 7 and 8 stalked, 8 to termen; rather dark ochreous-fuscous; an ochreous-yellow basal patch occupying  $\frac{2}{3}$  of wing, base partially suffused with fuscous, outer edge straight; an ochreous-yellowish dot on costa at  $\frac{2}{3}$ ; an indistinct streak of ochreous-yellowish suffusion round apex; cilia fuscous, becoming whitish-ochreous round apex. Hind-wings dark fuscous; cilia as in fore-wings.

ASSAM (Khasi Hills); two specimens.

63. *I. purpurascens*, Hamps.

*Callartona purpurascens*, Hamps., Moths Ind. i, 233.

NILGIRIS.

64. *I. microsticta*, Hamps.

*Callartona microsticta*, Hamps., Journ. Bomb. Nat. Hist. Soc. xi, 284.

ASSAM.

65. *I. flaviceps*, Feld.

*Tortricomorpha flaviceps*, Feld., Reis. Nov. pl. cviii, 4.

HIMALAYA. Not known to me.

66. *I. melotoma*, n. sp.

♂. 20 mm. Head and palpi ochreous-yellow, terminal joint of palpi short. Antennæ dark fuscous. Thorax fuscous, collar, margins of patagia, and a posterior spot deep ochreous-yellow. Abdomen ochreous-yellowish, suffused with orange towards base, posteriorly infuscated except anal tuft. Fore-wings elongate-oblong, costa bent towards middle, nearly straight posteriorly, apex rounded-obtuse termen slightly rounded, little oblique; 7 and 8 stalked, 8 to termen; fuscous, markings deep ochreous-yellow; an almost basal mark from costa, reaching half across wing; a moderate, subquadrate spot on dorsum at  $\frac{1}{4}$ ; a short indistinct suffused mark from costa at  $\frac{2}{3}$ ; an almost apical oblique spot from costa, not quite reaching termen, placed in a darker fuscous terminal fascia; cilia fuscous or light fuscous, round apex pale yellowish. Hind-wings with shallow submedian furrow towards base, placed between ridges of rough orange hairs, scales of disc modified, hairlike, somewhat raised; fuscous, tinged with orange, especially towards base, with suffused dark fuscous terminal band; cilia ochreous-whitish, basal half fuscous.

SIKKIM; two specimens.

67. *I. crocozela*, n. sp.

♂. 21 mm. Head, palpi, antennæ, and thorax ochreous-yellow; terminal joint of palpi short; thorax with posterior third purple-grey. Abdomen dark grey, at apex and beneath pale yellowish. Posterior tibiæ rough-haired beneath. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; dark fuscous-purple; markings ochreous-yellow; a fine costal streak, dilated towards base; a streak in disc from near base to middle; a large oblique triangular blotch on middle of costa, apex directed towards tornus and reaching  $\frac{2}{3}$  across wing; an elongate mark along dorsum from  $\frac{1}{3}$  to  $\frac{3}{4}$ ; a narrow fascia round apical fourth of costa and termen to tornus, broadest at apex; cilia ochreous-yellow, on termen fuscous. Hind-wings with subdorsal groove; dark fuscous, lighter towards base and dorsum; cilia whitish-fuscous with darker fuscous basal shade, at apex whitish.

NEW GUINEA (Sariba I.); one specimen (*Meek*).

68. *I. chrysoplaca*, n. sp.

♀. 19 mm. Head, palpi, antennæ, and thorax ochreous-yellow; terminal joint of palpi short; posterior half of thorax purplish-fuscous. Abdomen fuscous, beneath yellowish. Fore-wings elongate, costa slightly arched, apex rounded-obtuse, termen slightly rounded, hardly oblique; 7 and 8 stalked, 8 to termen; purplish-fuscous, markings ochreous-yellow; a small spot on base of costa, and a moderately large subtriangular spot on costa about middle, extreme costal edge between these yellow; a moderate streak round apical fourth of costa and termen to near tornus, broadest at apex of wing, narrowed to extremities, extreme apical margin black; cilia ochreous-yellow, at tornus fuscous. Hind-wings fuscous; cilia pale fuscous, on upper half of termen whitish-ochreous.

NEW GUINEA; one specimen. I think it not unlikely that this may be the other sex of the preceding species, but the differences are considerable, and at present I prefer to keep them separate.

69. *I. phalerata*, n. sp.

♂. 22 mm. Head whitish-ochreous. Palpi whitish-ochreous, basal joint rather long, second joint excurved, terminal joint very short. Antennæ dark fuscous. Thorax fuscous. Abdomen dark fuscous, beneath ochreous. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded-obtuse, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; rather dark ochreous-fuscous, with slight purple gloss, markings ochreous-yellow; a narrow somewhat curved fascia from  $\frac{1}{4}$  of costa to  $\frac{1}{3}$  of dorsum, attenuated on lower half; a moderate triangular spot on costa at  $\frac{2}{3}$ , and an elongate spot on costa towards apex; cilia fuscous, at apex paler and becoming pale yellow at base. Hind-wings dark fuscous; a moderate longitudinal ochreous-whitish streak in disc from  $\frac{1}{4}$  to  $\frac{3}{4}$ ; cilia fuscous, with suffused ochreous-whitish apical patch.

ASSAM (Khasi Hills); one specimen.

70. *I. epicomia*, n. sp.

♂ ♀. 23-25 mm. Head and thorax yellow, slightly sprinkled with fuscous. Palpi yellow, anterior edge and in ♀ most of terminal joint fuscous, terminal joint rather more than half second. Antennæ ochreous-yellow. Abdomen dark fuscous, beneath light ochreous-

yellowish, in ♂ hairy towards base above, apparently with large genital tuft. Fore-wings elongate, posteriorly rather dilated, costal gently arched, apex rounded, termen somewhat rounded, little oblique; 7 and 8 stalked, 8 to termen; yellow, sprinkled with brownish, costa narrowly and termen more broadly ochreous, terminal half in ♀ tinged with ochreous-orange; a fuscous mark along basal fourth of dorsum; a trisinate dark grey line from middle of costa to  $\frac{2}{3}$  of dorsum, edged posteriorly with lilac suffusion except towards costa; a curved series of undefined dark grey dots midway between this and termen, indented in middle, not reaching margins; an irregular curved series of similar dots from a mark on costa before  $\frac{1}{3}$  to tornus; some very indistinct grey terminal dots; cilia ochreous, with grey or dark grey subbasal line, and a dark grey spot at apex. Hind-wings dark grey; a whitish-ochreous streak above middle from base to end of cell, where it extends to lower angle; cilia ochreous-whitish, with grey subbasal line and apical spot.

SOLOMON ISLANDS (Choiseul, Florida); two specimens (*Meek*).

71. *I. mackwoodii*, Moore.

*Dacnusa mackwoodii*, Moore, Lep. Ceyl. iii, 520, pl. cexi, 13.

CEYLON.

72. *I. lithosioides*, Moore.

*Moca lithosioides*, Moore, Lep. Ceyl. iii, 372; *Tortricomorpha diphtherina*, Meyr., Journ. Bomb. Nat. Hist. Soc. 1905, 611.

CEYLON. This species varies very considerably in the development of the pale yellowish markings, and I am now satisfied that *diphtherina* is only a form of it.

73. *I. ergasia*, Meyr.

*Tortricomorpha ergasia*, Meyr., Journ. Bomb. Nat. Hist. Soc. 1905, 611.

CEYLON. Described from ♀; the ♂ (since received) has second joint of palpi laterally excurved, light ochreous-yellowish, anteriorly fuscous, terminal joint  $\frac{1}{2}$  of second; abdomen without the median tufts of *lithosioides*.

74. *I. chlorosoma*, n. sp.

♂. 27 mm. Head, palpi, and thorax whitish-ochreous mixed with pale ochreous, facial scales brushed upwards between antennæ; palpi with second joint excurved, terminal joint very short; thorax beneath fore-wings with broad patch of long hairs directed backwards. Antennæ dark fuscous, beneath pale ochreous, ciliations very short. Abdomen fuscous, becoming ochreous-whitish towards base, beneath whitish-ochreous, posteriorly with lateral fringe of dense rough scales. Fore-wings elongate, narrowed anteriorly, dilated posteriorly, costa posteriorly slightly arched, apex rounded, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; dark purple-fuscous; an ochreous-whitish basal patch, outer edge running from base of costa to  $\frac{1}{4}$  of dorsum, more ochreous towards costa; very indistinct dots of ochreous suffusion on costa at  $\frac{2}{3}$  and  $\frac{3}{4}$  and before apex; some slight ochreous suffusion towards tornus; cilia fuscous. Hind-wings with dorsal area clothed with dense long hairs; fuscous, becoming dark fuscous posteriorly; a basal patch of white suffusion; an irregular elongate-triangular patch of white suffusion in disc, on which lower margin of cell appears as a dark fuscous intersecting line; cilia fuscous, becoming fuscous-whitish on dorsum.

ASSAM (Khasi Hills); one specimen.

75. *I. strepsizona*, n. sp.

♀. 26 mm. Head whitish-ochreous, face more yellowish, hairs brushed upwards between antennæ. Palpi light ochreous-yellowish, terminal joint very short. Antennæ fuscous, basal joint whitish-ochreous. Thorax light ochreous-yellowish, sides sprinkled with fuscous. Abdomen fuscous, beneath yellow-ochreous, on posterior half with dense lateral ridge of rough hairs. Fore-wings elongate, posteriorly much dilated, costa posteriorly gently arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; fuscous, irrorated with dark fuscous and towards base with pale ochreous; a small ochreous-yellowish basal spot beneath costa; two suffused pale ochreous-yellowish transverse streaks enclosing a moderate fascia of ground colour partially mixed with pale yellowish, running from middle of costa to  $\frac{3}{4}$  of dorsum, above middle constricted and with streaks twice confluent; wing beyond this fascia wholly blackish-fuscous; cilia dark fuscous, base ochreous-whitish at apex. Hind-wings dark fuscous; cilia ochreous-whitish with a fuscous patch on middle of termen, basal half dark fuscous.

CELEBES; one specimen.

76. *I. acluropis*, n. sp.

♂. 25 mm. Head, palpi, and antennæ light brownish, terminal joint of palpi short. Thorax brown. Abdomen fuscous, beneath whitish-ochreous, hairy above towards base. Fore-wings elongate, posteriorly dilated, costa slightly arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; rather dark ochreous-fuscous, slightly purplish-tinged; small indistinct spots of pale ochreous suffusion on costa before middle, before  $\frac{3}{4}$ , and at apex; an oblong pale ochreous patch extending on dorsum from middle to tornus and reaching nearly half across wing, suffused above; cilia fuscous. Hind-wings dark fuscous; cilia fuscous.

BORNEO (Sandakan); one specimen in British Museum (*Pryer*).

77. *I. albofascia*, Feld.

*Tortricomorpha albofascia*, Feld., Sitzb. Ak. Wien. 1861, 43; Reis. Nov. pl. cviii, 2.

♂ ♀. 22-23 mm. Head fuscous mixed with whitish, face suffused with whitish. Palpi fuscous-whitish, with dark fuscous anterior and lateral stripes, basal joint somewhat elongate, second joint rather short, terminal somewhat more than half second. Antennæ fuscous. Thorax fuscous irrorated with dark fuscous, patagia edged with ochreous-whitish. Abdomen fuscous, beneath ochreous-whitish. Fore-wings elongate, posteriorly somewhat dilated, costa gently arched, apex rounded, termen almost straight, rather oblique; 7 and 8 stalked, 8 to apex; fuscous, sprinkled with dark fuscous; a patch of dark fuscous suffusion extending along costa from base to  $\frac{5}{8}$  and reaching  $\frac{2}{3}$  across wing, terminated posteriorly by a tornal blotch of whitish suffusion obscurely extended towards apex (but this blotch is sometimes almost obsolete); an almost marginal series of ochreous-whitish marks round apex and tornus; cilia fuscous mixed with dark fuscous, with a pale basal line. Hind-wings dark fuscous; cilia grey, with darker basal line.

CEYLON (Uva), S. INDIA (Belgaum); according to Felder from Amboina.

78. *I. stilbiota*, Low.

*Tortricomorpha stilbiota*, Low., Trans. Roy. Soc. S. Austr. 1903, 69.

QUEENSLAND. Not known to me.

79. *I. lichenopa*, Low.

*Tortricomorpha lichenopa*, Low., Trans. Roy. Soc. S. Austr. 1903, 69 (misprinted *lichncopa*).

QUEENSLAND. Not known to me.

80. *I. chlorolepis*, Wals.

*Tortricomorpha chlorolepis*, Wals., Mon. Christm. Isl. 78.

CHRISTMAS ISLAND. Not known to me; it is however clearly allied to the preceding species, these two being very different from anything else.

81. *I. tyrocnista*, n. sp.

♂. ♀. 33-35 mm. Head and thorax dark purplish-fuscous sprinkled with whitish-ochreous, thorax posteriorly in ♂ with one large spot, in ♀ with two smaller spots of raised darker modified scales, surrounded with paler scales. Palpi dark slaty-fuscous, second joint internally and on upper longitudinal half pale yellowish, terminal joint extremely short. Antennæ dark fuscous. Abdomen fuscous, in ♂ with basal half clothed with long hairs, and with large white exertible genital tuft, beneath pale ochreous-yellowish. Fore-wings elongate, dilated, costa gently arched, apex obtuse, termen rounded, somewhat oblique; 7 and 8 stalked, 8 to termen; dark purplish-fuscous, irregularly strewn with whitish-ochreous scales; small indistinct cloudy dark fuscous spots in disc at  $\frac{1}{3}$ , and before and beyond middle; a cloudy spot of pale irroration on costa at  $\frac{2}{3}$ ; a terminal series of pale ochreous connected lunulate marks alternating with cloudy dark fuscous dots; cilia fuscous, with darker basal shade. Hind-wings dark fuscous, rather lighter anteriorly; cilia fuscous, tips whitish.

ANDAMAN ISLANDS; two specimens (*Swinhoc*); also three in British Museum.

82. *I. chasmatica*, n. sp.

♀. 31-33 mm. Head and thorax fuscous. Palpi fuscous, apex of second and terminal joints pale yellowish, terminal joint half second. Antennæ and abdomen dark fuscous. Fore-wings elongate-oblong, costa anteriorly moderately, posteriorly slightly arched, apex rounded-obtuse, termen rounded, hardly oblique; 7 and 8 stalked, 8 to costa; fuscous finely sprinkled with blackish, with

some obscure pale strigulae, especially on costa anteriorly; a blackish streak beneath costa from near base to near middle, interrupted by pale strigulae; an undefined blackish line along submedian fold almost throughout; an undefined irregular blackish streak in disc from  $\frac{1}{3}$  to termen, posteriorly split into three more or less marked branches on veins, interrupted by a suffused whitish-ochreous dot at  $\frac{2}{3}$ ; veins towards costa before apex and towards tornus more or less marked with blackish; a small apical spot of pale ochreous suffusion; cilia fuscous, sometimes blackish-mixed, tips suffused with light ochreous. Hind-wings dark grey; cilia grey. Under surface of fore-wings with a well-defined pale yellowish apical spot.

SIKKIM, ASSAM; four specimens.

83. *I. nephelastra*, n. sp.

♂. 18 mm. Head dark fuscous, orbits and face ochreous-whitish. Palpi ochreous-whitish, second joint externally fuscous, terminal joint imperceptible (concealed or aborted). Antennae dark fuscous, basal joint long, thick, tufted in front. Thorax dark fuscous, shoulders obscurely edged with pale ochreous (partly defaced). Abdomen dark fuscous. Middle tibiae thickened with long dense hairs above. Fore-wings elongate, posteriorly dilated, costa posteriorly gently arched, apex rounded, termen rounded, little oblique; 7 and 8 separate, 8 to costa; blackish-fuscous, markings pale ochreous, cloudy and ill-defined; a short longitudinal streak from base in middle; a small spot beneath costa at  $\frac{1}{2}$ , and one on dorsum at  $\frac{1}{4}$ ; an incurved transverse spot in disc at  $\frac{1}{3}$ , nearly reaching costa but not nearly dorsum; a moderate roundish spot on costa beyond middle, another towards dorsum at  $\frac{2}{3}$ , and a third in disc at  $\frac{3}{4}$ ; a narrower transverse spot on costa at  $\frac{4}{5}$ , very indistinct marks above tornus and towards middle of termen; cilia ochreous-whitish, basal third dark fuscous. Hind-wings dark fuscous, more thinly scaled towards base, with two or three undefined semitransparent streaks towards dorsum; cilia as in fore-wings, at apex and; tornus becoming fuscous.

BORNEO; one specimen. This species presents a combination of characters, which makes it difficult to determine its true position in the genus.

84. *I. pardalina*, Walk.

*Gyrtona pardalina*, Walk. xxvii, 91.

♂. 20-21 mm. Head whitish-ochreous, crown mixed with fuscous. Palpi whitish-ochreous, anteriorly fuscous-tinged, terminal joint



imperceptible. Antennæ dark fuscous, basal joint elongated and enlarged, with dense projecting tuft of scales anteriorly. Thorax and abdomen fuscous. Fore-wings elongate, posteriorly dilated, costa slightly arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 separate, 8 to costa, 11 curved and approximated to 12; fuscous; submedian fold forming a whitish-ochreous groove towards base, terminating in a small basal spot of raised whitish-ochreous scales; median area forming a very indefinite ochreous-whitish band, anterior edge running from about  $\frac{2}{3}$  of costa to before middle of dorsum, acutely triangular-prominent above middle and indented above and below this, on lower half preceded by dark reddish-fuscous suffusion, posterior edge from about  $\frac{3}{4}$  of costa to  $\frac{3}{4}$  of dorsum, undefined; within this band are a semioval cloudy dark fuscous spot on middle of costa and a longitudinal blackish-fuscous sometimes interrupted mark in disc, strongly hooked upwards at posterior extremity; posterior area reddish-tinged and finely irrorated with blackish-fuscous, with a submarginal series of irregular brownish-ochreous triangular marks; cilia fuscous, with dark fuscous basal line, towards tornus whitish. Hind-wings with subdorsal groove; dark fuscous, somewhat lighter towards base; cilia fuscous, with darker basal line.

BORNEO, SINGAPORE, SELANGOR. I have redescribed this species, as Walker's description is unrecognizable. It is closely allied to *velutina*, but differs structurally by the elongate basal joint of antennæ, and relatively shorter and broader fore-wings; in *velutina* also the palpi are largely marked with dark fuscous.

85. *I. velutina*, Walk.

*Moca velutina*, Walk. xxvii, 102.

CEYLON.

86. *I. nephallactis*, n. sp.

♂ ♀. 17-20 mm. Head and thorax fuscous sometimes suffusedly mixed with whitish, shoulders and sometimes patagia streaked with black and whitish-ochreous, more sharply in ♂. Palpi white, second joint with broad dark fuscous median band, terminal joint short, dark fuscous except apex. Antennæ grey. Abdomen fuscous, apex sometimes white, beneath white. Fore-wings elongate, posteriorly dilated, costa gently arched, apex rounded, termen rounded, somewhat oblique; 7 and 8 separate, 8 to costa; grey or fuscous sometimes variably sprinkled or suffused with white, in one specimen strongly violet-tinged; a black variably interrupted line

beneath costa from base to middle, edged beneath anteriorly by a fine pale yellowish line; a dark fuscous or blackish costal spot at  $\frac{1}{4}$ , and sometimes one near base, sometimes confluent; a thick irregular dentate dark fuscous line from this spot, not reaching dorsum, usually cut by a fine white line on submedian fold; a dark fuscous or blackish transverse mark in disc at  $\frac{2}{3}$ , terminating beneath in a round suffused spot, and two spots on costa before middle and at  $\frac{2}{3}$  separated by a white space, the whole sometimes merged into a large semioval dark fuscous costal blotch reaching  $\frac{2}{3}$  across wing; two or three dark fuscous subdorsal marks; a series of dark fuscous or blackish marks from  $\frac{1}{3}$  of costa to tornus, angulated above middle, where there is a larger spot, and sometimes a dark fuscous streak running from discal mark through angle to termen; a waved-dentate pale terminal line, preceded by a dark fuscous shade; cilia fuscous, with a darker basal line, sometimes barred with whitish. Hind-wings rather darker posteriorly, especially in ♂; cilia as in fore-wings.

VENEZUELA (Ciudad Bolivar); eighteen specimens. A variable species.

87. *I. cuneata*, n. sp.

♂ ♀. 22-23 mm. Head pale brownish, lower part of face white. Palpi fuscous, basal joint white, second joint relatively short, white at base and apex, terminal joint somewhat more than half second, obtuse. Antennæ dark fuscous, with a streak of whitish scales. Thorax brownish irrorated with whitish, in ♂ beneath laterally tufted with hairs. Abdomen fuscous, beneath whitish-brown. Fore-wings elongate-triangular, costa slightly arched, faintly sinuate before middle, apex obtuse, termen obliquely rounded; 7 and 8 separate, 8 to costa; whitish, more or less suffusedly irrorated with purplish-brown; markings very deep brown; a very oblique acute wedge-shaped mark from costa near base, limited anteriorly by a vertical white line from costa to fold; a small spot on costa at  $\frac{1}{4}$ , almost connected with a transverse elongate-triangular spot in disc beyond  $\frac{1}{4}$ ; a semioval spot on costa before middle; some irregular spots towards dorsum; a transverse I-shaped mark in disc at  $\frac{2}{3}$ , beneath which is an irregular patch of dark suffusion; an elongate blotch extending from near discal mark to near termen, crossed by a streak of undefined suffusion from  $\frac{2}{3}$  of costa to tornus; a pale waved terminal line, preceded by a series of suffused dark dots; cilia fuscous, with indications of whitish bars beneath apex and towards tornus. Hind-wings dark fuscous; cilia fuscous, with darker basal line.

BRAZIL, COLUMBIA; two specimens in British Museum.

88. *I. metachlora*, n. sp.

♀. 27 mm. Head brownish, lower margin of face white. Palpi fuscous, basal joint white, second joint relatively short, base and apex whitish, terminal joint rather more than half second, obtuse. Antennæ dark fuscous. Thorax dark brown, sprinkled with whitish. Abdomen dark fuscous, beneath whitish-brown. Fore-wings elongate-triangular, costa slightly arched, apex obtuse, termen rounded, somewhat oblique; 7 and 8 separate, 8 to costa; brown irregularly irrorated with pale grey, markings very dark brown; an irregular transverse spot on middle of costa, costal edge beyond this ochreous-white for a short distance; two small spots transversely placed in disc at  $\frac{2}{3}$ , between which is an X-shaped pale suffusion; a short contorted linear mark beneath middle of disc; an irregular subterminal fascia from beneath apex to tornus; a terminal series of small subconfluent spots; cilia brown, above tornus with an ochreous-white patch. Hind-wings dark fuscous; cilia fuscous, with dark fuscous basal line.

One specimen in British Museum without locality, but certainly South American, probably from Brazil.

89. *I. thymora*, n. sp.

♂ ♀. 21-22 mm. Head brown, face mostly ochreous-whitish. Palpi dark fuscous, basal and second joints anteriorly ochreous-whitish, terminal joint very short, obtuse. Antennæ dark fuscous. Thorax dark brown, streaked with ochreous-whitish. Abdomen dark fuscous, beneath whitish-brown. Fore-wings elongate, posteriorly dilated, costa slightly arched, apex obtuse, termen rounded, rather oblique; 7 and 8 separate, 8 to costa; dark brown, slightly reddish-tinged, strewn with small irregular ill-defined whitish-ochreous spots, nearly obsolete on apical area beyond an irregular angulated series from costa beyond middle to dorsum before tornus; a terminal series of pale dots; cilia fuscous, darker towards base. Hind-wings dark fuscous; cilia grey, with dark fuscous basal line.

BRAZIL (Ega); two specimens in British Museum.

90. *I. cincta*, Druce.

*Eustrotia cincta*, Druce, Biol. Centr. Amer. ii, 495, pl. xcv, 20.

GUATEMALA.

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91. *I. ciniata*, Druce.

*Thalpochares ciniata*, Druce, Biol. Centr. Amer. ii, 497,  
pl. xcv, 23.

PANAMA.

92. *I. cancanopis*, n. sp.

♂ ♀. 25-26 mm. Head grey, face white. Palpi white, second joint with a broad dark grey median band narrowed anteriorly, terminal joint half second, obtuse, grey. Antennæ grey. Thorax dark grey, somewhat mixed with ochreous-whitish. Abdomen dark fuscous, beneath pale brownish. Posterior tibiæ and basal joint of tarsi in ♂ with brushes of dense hairs beneath. Fore-wings elongate, posteriorly dilated, costa gently arched, apex obtuse, termen rather obliquely rounded; 7 and 8 separate, 8 to costa; purplish-fuscous, more purplish in ♂, irregularly sprinkled with blue-grey-whitish, with dark fuscous streaks on veins broken up into short dashes arranged in irregular transverse series; the whitish irroration tends to form series of undefined marks between these; a black dash beneath costa from base, edged beneath with ochreous-white; a pale waved terminal line, preceded by indistinct dark dots; cilia fuscous. Hind-wings dark fuscous; cilia fuscous.

COLUMBIA, CAYENNE; three specimens in British Museum.

93. *I. chloromelalis*, Walk.

*Aglossa chloromelalis*, Walk. xxxiv, 1249.

BRAZIL. Not known to me; Sir George Hampson writes "palpi with second joint shorter than usual, terminal as long as second; hind-wings with veins 3 and 4 approximated; characters otherwise as in *Imma*."

94. *I. boeta*, Druce.

*Thalpochares boeta*, Druce, Biol. Centr. Amer. ii, 497,  
pl. xcv, 24.

PANAMA.

95. *I. quadrivittana*, Walk.

*Gauris quadrivittana*, Walk. xxviii, 417.

BRAZIL. Not known to me; Sir George Hampson informs me that the head of the type is missing, and veins 6 and 7 of hind-wings are coincident; other characters apparently as in *Imma*.

## LOXOTROCHIS, n. g.

Head with appressed scales; ocelli absent; tongue developed. Antennæ (partly broken) in ♂ rather strongly ciliated, basal joint short, stout. Labial palpi moderate, curved, ascending, second joint thickened with dense scales, laterally compressed, somewhat excurved, terminal joint very short, thick, pointed. Maxillary palpi absent. Posterior tibiæ smooth-scaled. Fore-wings with *1b* furcate, 2 from towards angle, 3 and 4 approximated, 7 and 8 out of 9, 7 to apex, 10 out of 9 below 7, 11 from beyond middle. Hind-wings 1, oblong-ovate, cilia  $\frac{1}{3}$ ; 3 and 4 stalked, 5 parallel, 6 and 7 stalked.

This seems to be allied to *Imma*, yet it is very distinct; the characteristic palpi are quite similar, but the neuration is altogether different, yet such that it might be a derivative of *Imma*.

*L. sepias*, n. sp.

♂. 28 mm. Head, palpi, antennæ, and thorax fuscous. (Abdomen broken.) Fore-wings elongate, gradually dilated, costa moderately arched, apex rounded, termen rather obliquely rounded; rather dark fuscous, veins obscurely paler; cilia fuscous. Hind-wings dark grey, with a faint purplish tinge; cilia grey.

NEW HEBRIDES (Espiritu Santo); one specimen in British Museum.

## PALAMERNIS, n. g.

Head with appressed scales; ocelli very large; tongue short. Antennæ  $\frac{2}{3}$ , in ♂ stout, simple, basal joint short, without pecten. Labial palpi moderate, obliquely ascending, second joint thickened with appressed scales, terminal joint short ( $\frac{1}{3}$ ), thick, hardly pointed. Maxillary palpi obsolete. Posterior tibiæ with appressed scales, in ♂ with a pencil of long hairs from before middle above. Fore-wings with vein *1b* long-furcate, 2-10 near and equidistant, 7 to apex, 11 from  $\frac{2}{3}$ , no secondary cell. Hind-wings over 1, ovate, cilia  $\frac{1}{3}$ ; 2 and 3 stalked from lower angle of cell, 4-7 tolerably parallel.

This curious form is apparently allied to *Imma* and *Brachodes*, but very distinct from either; the neuration of hind-wings is quite unique.

*P. canonitis*, n. sp.

♂. 22-24 mm. Head and thorax fuscous, somewhat whitish-mixed, thorax beneath with a fringe of projecting flat white scales between middle and posterior legs. Palpi fuscous, whitish beneath and towards base. Antennæ dark fuscous. Abdomen fuscous, segmental margins whitish. Fore-wings elongate, costa gently arched, apex rounded-obtuse, termen rather obliquely rounded; brownish or pale fuscous, irrorated with dark fuscous; submedian fold sometimes obscurely whitish from base to middle; cilia light fuscous. Hind-wings rather dark fuscous, lighter anteriorly, sometimes with obscure streak of whitish suffusion from base to middle of disc; cilia whitish-fuscous with darker basal line, towards tips whitish.

HIMALAYA (Simla); two specimens in May (*Major C. G. Nurse*).